

Serial No.: 09/848,046

**REMARKS**

Claims 7-12 are pending in the application. Favorable reconsideration of the application is respectfully requested in view of the following comments.

***I. REJECTION OF CLAIMS 11-12 UNDER 35 USC §112, 1<sup>ST</sup> ¶***

Claims 11 and 12 stand rejected under 35 USC §112, first paragraph, as failing to comply with the written description requirement. Withdrawal of the rejection is respectfully requested for at least the following reasons.

Claims 11 and 12 were introduced in applicants' previous response mailed on June 3, 2003. The Examiner argues that the specification does not support the aspect of a deformed portion of a track that is non-overlapping with an adjacent track. The Examiner agrees that Fig. 6A of the present application illustrates deformed portions 406 in corresponding grooves which do not overlap with one another. However, the Examiner argues that the language "traces" in claims 11 and 12 encompasses not only grooves, but also "pits" and other embodiments.

Applicants agree that "traces" could encompass "pits" and other embodiments. However, a groove is in fact a form of trace. Therefore, the grooves of Fig. 6A do provide support for non-overlapping "traces". It is not necessary for applicants to provide every conceivable manner for making the invention in the application. Rather, it is only necessary that applicants provide a description of at least one way of making the invention. The grooves of Fig. 6A provide such example and justify the use of the term non-overlapping "traces".

Furthermore, those having ordinary skill in the art appreciate the similarities between grooves and pits, etc., representing different types of traces in an optical disk. Thus, applicants respectfully submit that the present application is in fact enabling to claims 11 and 12. Withdrawal of the rejection is respectfully requested.

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**II. REJECTION OF CLAIMS 7-9 UNDER 35 USC §102(b)**

Claims 7-9 remain rejected under 35 USC §102(b) based on *Kawase*.

Withdrawal of the rejection is respectfully requested for at least the following reasons.

As applicants previously pointed out, claim 7 recites that *during a rotation of the substrate* the photoresist film on the substrate is irradiated with the beam so as to form a first beam trace in the photoresist film. Then, *during a rotation which is subsequent to the rotation during which the first beam trace is formed*, the photoresist film is further irradiated with the *same* beam such that the beam partially overlaps the first beam trace, so that a second beam trace is formed in the photoresist film.

Thus, the present invention enables the use of a single beam and thereby eliminates the need for the adjustment of two beams as required in the conventional methods described in the present specification and in *Kawase*. (See, e.g., Spec., p. 29, ln. 21 to p. 30, ln. 1).

In the outstanding Office Action, the Examiner disagrees with applicants' arguments that *Kawase et al.* is non-enabling with respect to how to form the overlapping clock pits with a signal beam in the manner claimed. The Examiner relies on the fact that *Kawase et al.* mentions a single laser beam which is deflected radially of the disk so as to form the overlapping clock pits.

While the Examiner certainly can argue that *Kawase et al.* teaches a single beam, it still does not mean that the method steps recited in claims 7-9 would have been inherent or obvious in *Kawase et al.* For example, the Examiner did not address the applicants' argument that the single beam in *Kawase et al.* could be utilized in a manner *not* claimed yet *still* form the overlapping clock pits. Specifically, applicants argued:

*[T]he Examiner is silent, as is Kawase, as to whether such a single beam cutting apparatus would make the additional intermediate beam spots via subsequent rotations as recited in the amended claims. For example, a single beam could be radially deflected very rapidly as the optical disk is rotated. Alternatively, the disk rotation may be stopped and the beam deflected radially in order to result in the configurations shown in Fig. 8.*

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*In other words, Kawase does not expressly state how the intermediate beam spots are provided. Moreover, Kawase does not inherently teach forming a partially overlapping second beam trace during a subsequent rotation using a single beam as seemingly implied in the Examiner's rejection. As pointed out above, the additional intermediate beam spots in Kawase could just have well been produced according to some other manner while still using a single beam. The fact that Kawase refers to multiple exposures does not necessarily mean using a single beam as recited in the claims. Each of the alternative methods recited above can be viewed as multiple exposures. Thus, it is improper to rely on Kawase as teaching more than it does.*

The Examiner refers to Kawase as teaching that the "laser beam is deflected radially of the disk with a small pitch in such a manner that a number of clock pits overlap with one another, thus forming the clock groove 501. In this case the disk is subjected to multiple exposure". Again, however, this does not mean that the steps recited in claim 7 must be carried out. Rather, the very same objective stated in Kawase could be accomplished with a single beam radially deflected very rapidly during one single rotation of the optical disk. Alternatively, the disk rotation may be stopped and the beam deflected radially. The multiple exposure occurs as a result of the beam retracing its' path during the deflection.

In other words, Kawase does not teach or suggest the method steps recited in claim 7. To the extent Kawase teaches a single beam and deflection thereof, Kawase still does not teach or suggest the particular method of using and deflecting a single beam in subsequent rotations as recited in claim 7. As noted above, Kawase could accomplish that which is described in Kawase by methods other than that recited in claim 7. Thus, the features of claim 7 are neither inherent, expressed nor suggested in Kawase.

For at least the above reasons, withdrawal of the rejection is respectfully requested.

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**III. REJECTION OF CLAIMS 7-12 UNDER 35 USC §103(a)**

Claims 7-10 stand rejected under 35 USC §103(a) based on *Kawase* in view of *Van et al.* Withdrawal of the rejection is respectfully requested for at least the following reasons.

*Kawase* does not teach or suggest the use of a same or single beam as recited in claim 7 for the reasons stated above. Similarly, *Kawase* does not teach or suggest the features of claim 10. Therefore, these claims may be distinguished over *Kawase* for at least the same reasons given above with respect to claim 7.

*Van et al.* does not make up for the deficiencies in *Kawase*. Rather, *Van et al.* is similar to *Kawase* in that *Van et al.* also describes a two-beam master cutting system. (See, e.g., Col. 3, Ins. 12-28). *Van et al.* does not teach or suggest using a same or single laser beam on subsequent rotations as recited in claims 7 and 10. Remaining claims 8-9 and 11-12 may be distinguished for at least the same reasons.

Withdrawal of the rejection is respectfully requested.

**IV. CONCLUSION**

Accordingly, claims 7-12 are believed to be allowable and the application is believed to be in condition for allowance. A prompt action to such end is earnestly solicited.

Should the Examiner feel that a telephone interview would be helpful to facilitate favorable prosecution of the above-identified application, the Examiner is invited to contact the undersigned at the telephone number provided below.

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Should a petition for an extension of time be necessary for the timely reply to the outstanding Office Action (or if such a petition has been made and an additional extension is necessary), petition is hereby made and the Commissioner is authorized to charge any fees (including additional claim fees) to Deposit Account No. 18-0988.

Respectfully submitted,

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DATE: November 7, 2003

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